WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: TX3121

Title: Incorporation of Salinity in Evaluating Water Availability

Focus Categories: Water Quality, Models

Keywords: river basin management, water supply, natural salt pollution

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: $5,000

Non-Federal Matching Funds: $15,719

Congressional District: 8

Principal Investigator:
Richard Hoffpauir
Student, The Texas AM University

Abstract

This study will expand upon previously-funded TWRI research to develop water availability modeling (WAM) computer-based simulation tools. WAM models funded by TWRI are now used widely throughout Texas to assess water rights availability under different flow conditions. This study will develop the capability to incorporate natural saline rivers of West Texas into the WAM framework. By building upon another suite of TWRI-funded water management models, the Water Rights Availability Program (WRAP), this project will provide insights into how natural salt pollution may affect water availability and reliability, as well as assessing the likelihood that various management alternatives may successfully deal with salinity problems. Case studies involving three Texas watersheds affected by naturally high salinities (the Brazos, Red, and Canadian river basins) will be conducted.